Chapter 7
Preferred Alternative

Following review of the alternatives evaluation, there was consensus among the Technical Advisory Committee (TAC), Citizen Advisory Committee (CAC), and the general public attending the final open house that Alternative B, including the Ivy/Holly couplet, would be the Preferred Alternative. This chapter will provide further detail on this alternative, including an outline of a potential phasing plan, to help guide further analysis and design efforts through the project development process in the future.

Preferred Alternative: Alternative B – Ivy/Holly Couplet

Functional Plan

The key aspects of Alternative B are that it maintains two lanes of capacity in both directions of travel along OR 99, while reducing turning conflicts, utilizing existing public right of way, and creating an environment that is more conducive to walking and biking. In particular, the element that made this alternative preferred over the other couplet-based alternative considered was that it minimized impacts on existing land uses by shifting the highway alignment to the east, towards the center of the downtown, by routing northbound traffic over Holly Street and southbound traffic over Ivy Street (existing OR 99), where surrounding land uses are already consistent with highway-oriented businesses. It is important to note that a critical assumption associated with this project is that the Burlington Northern Santa Fe (BNSF) railroad, which currently runs down the middle of Holly Street, would be removed as part of a separate effort. Alternative B could not be constructed with the BNSF railroad in its current location. A concept drawing of Alternative B, showing general roadway alignments, typical highway cross-sections, lane configurations, traffic signal locations, and 95th percentile queue lengths for use in turn lane design, is provided in Figures 7-1 and 7-2.

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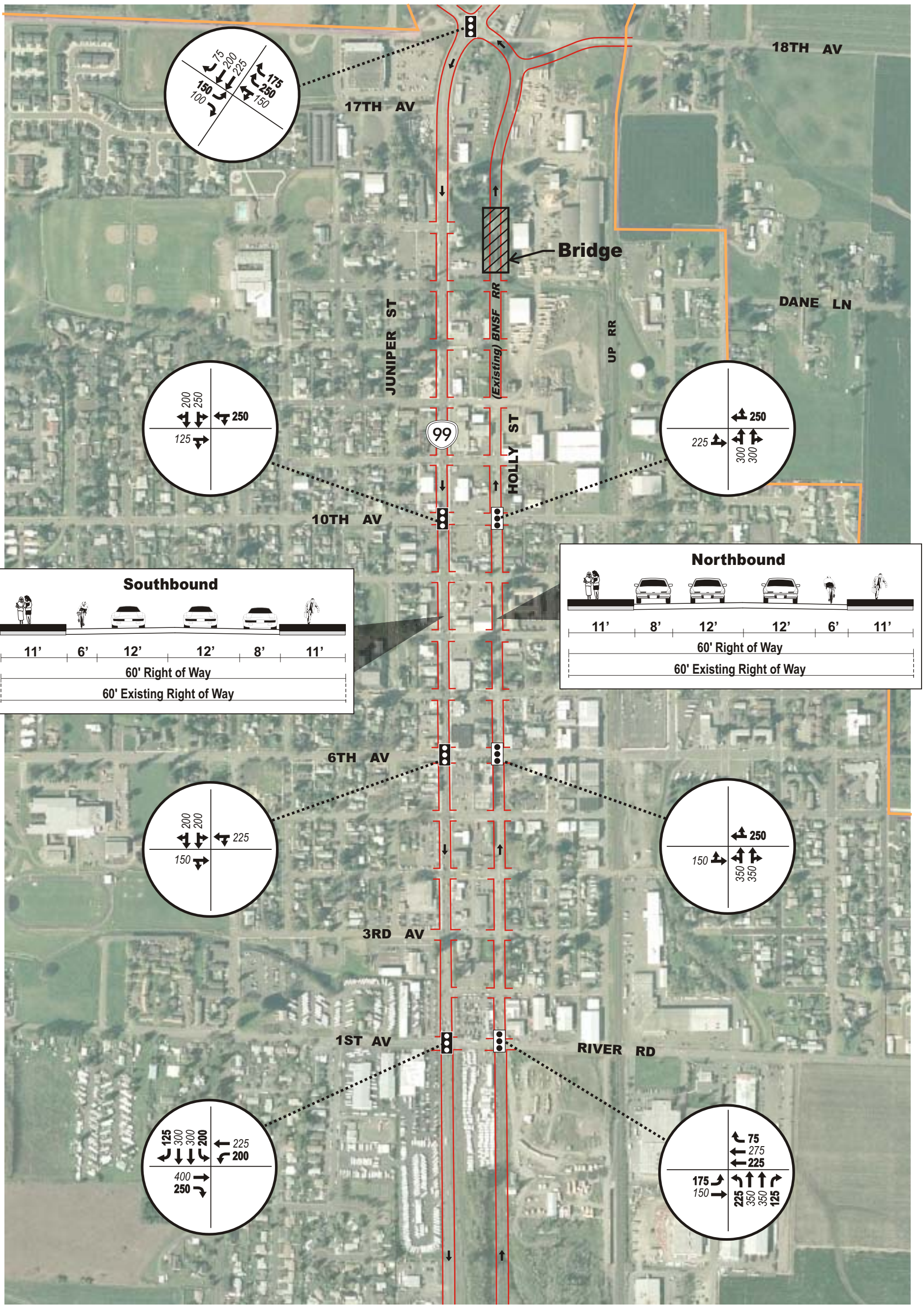
Refinement Plan

Scale: 1"=500'
0 500'

Figure 7-1
Alternative B
IVY/HOLLY COUPLET: North Section

LEGEND

- Couplet Alignment
- Urban Growth Boundary (UGB)
- Potential New Traffic Signal
- Existing Traffic Signal
- Approach Lane
- *000* - 95th Percentile Queue (feet)
- **000** - Bold Type Indicates Extended Storage or New Lane Needed
- *X* - Free Movement, No Queue



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Scale: 1"=500'
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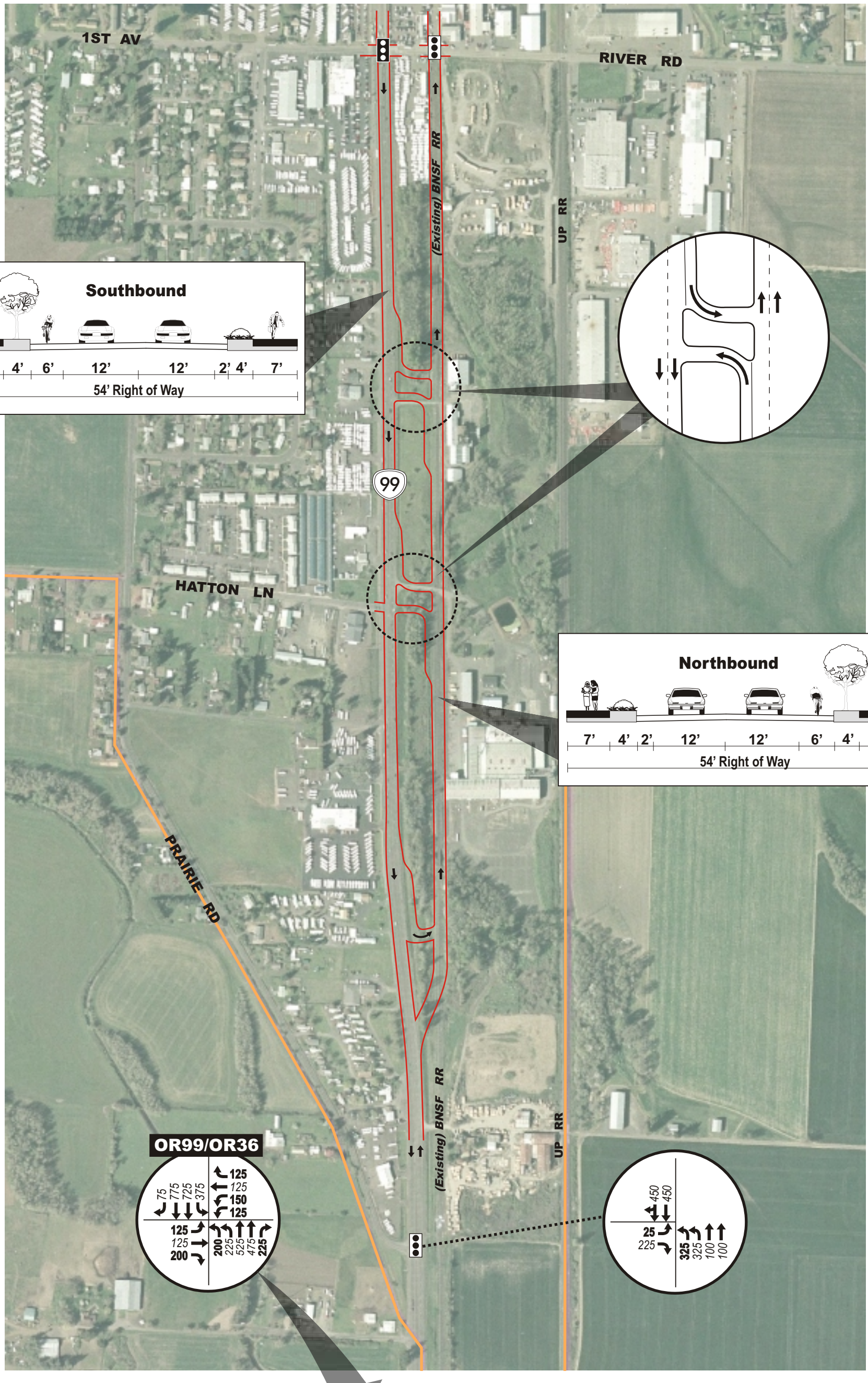
Figure 7-2
Alternative B
IVY/HOLLY COUPLET: South Section

LEGEND
- Couplet Alignment
- Urban Growth Boundary (UGB)
- Potential New Traffic Signal
- Existing Traffic Signal
- Approach Lane
- *000* - 95th Percentile Queue (feet)
- **000** - Bold Type Indicates Extended Storage or New Lane Needed
- *X* - Free Movement, No Queue



Alternative B consists of several distinct sets of improvements that, while all necessary to achieve adequate operations through the OR 99 study corridor, can be viewed separately to facilitate understanding of the various elements and potential construction phasing options. These groupings include:

- The north couplet,
- The south couplet,
- Local facility improvements,
- OR 99/Prairie Road improvements, and
- OR 99/OR 36 improvements.

Each of these groupings has been highlighted on an area map in Figure 7-5 later in this memorandum.

The North Couplet

The elements of the overall improvements referred to as the "north couplet" include the improvements in the OR 99 corridor from the north project limits at the OR 99W/OR 99E junction to just south of 1st Avenue (see Figure 7-1).

The new couplet would begin at the OR 99W/OR 99E junction, where Ivy Street would be converted to serve only one-way travel in the southbound direction. The existing approach of 18th Avenue would be replaced by a new highway approach serving only one-way travel in the northbound direction. The approaches of OR 99W and OR 99E would continue to serve two-way traffic, but would require some modifications to be compatible with the new one-way approaches to the intersection and modification of the existing traffic signal would be necessary. For the purpose of this analysis, the modified traffic signal at the OR 99W/OR 99E junction was assumed to be actuated and uncoordinated (2,600 feet from nearest signal at 10th Avenue) and operate at a cycle length of 90 seconds. Split phasing was used, with each of the three approaches (Ivy Street has no entering traffic) having its own phase.

The northbound roadbed of the OR 99 couplet would follow the BNSF railroad/Holly Street alignment (the railroad is assumed to have been previously removed through a separate effort) until about 16th Avenue, where it would veer to the east and return to align with OR 99W to become the fourth leg of the existing OR 99W/OR 99E intersection. This would require a realignment of 18th Avenue from the UPRR crossing to intersect with the northbound couplet roadbed (right-in/right-out intersection) rather than the OR 99W/OR 99E intersection as it does under existing conditions. Just north of 14th Avenue, a new bridge would be needed along the northbound Holly Street alignment to cross over Flat Creek.

The one-way northbound and southbound roadbeds would continue to the south along the Holly Street and Ivy Street alignments, respectively, through the intersections with 1st Avenue. Each one-way corridor of OR 99 would be constructed to fit within the existing 60-foot right-of-ways along Ivy Street and Holly Street, using a design speed of 30 mph (posted speed of 25 mph) and would include:

- 2 travel lanes (12 feet wide each),
- 1 bike lane (6 feet wide),
- Parallel parking on one side of the highway (8 feet wide), and
- 2 sidewalks (11 feet wide each).

Where there are existing traffic signals along OR 99 at 10th Avenue and 6th Avenue, it was assumed future traffic signals would continue to be needed at these locations on each corridor (preliminary signal warrants are met for all four signals and are included in the appendix). For the purpose of this analysis, each traffic signal was assumed to be actuated and coordinated, with coordination from 1st Avenue through 10th Avenue in each corridor. To keep vehicle queues short in the east-west direction between the halves of the couplet and to better serve pedestrian crossings, cycle lengths of 60 seconds were used. Each signal was operated with only two phases, using permissive left turn control. Because the signal at 1st Avenue was assumed to run with a 90-second cycle length to serve higher traffic demands, the signals at 10th and 6th Avenues would only be coordinated with the signal at 1st Avenue every third cycle. If better coordination between these signals is desired (approximately 1,500 feet between 1st Avenue and 6th Avenue), a 90-second cycle length could be used at 10th and 6th Avenue intersections, but this may result in longer side-street queues and longer pedestrian wait times in the downtown area.

Per a request from the CAC, all signalized intersections are to include audible pedestrian crossing signals to assist the vision impaired.

As noted, the intersections on OR 99 at 1st Avenue will need to serve higher traffic volumes, so were assumed to run at 90-second cycle lengths with protected left turn phasing provided on the side streets. The addition of separate turn lanes on intersection approaches was also required to adequately serve the expected demand. These improvements include:

Ivy Street/1st Avenue Intersection

- 200’ southbound left turn lane on Ivy Street;
- 125’ southbound right turn lane on Ivy Street;
- 250’ eastbound right turn lane on 1st Avenue; and
- Separate westbound left turn lane – full length, extending to Holly Street.

Holly Street/1st Avenue Intersection

- 225’ northbound left turn lane on Holly Street;
- 125’ northbound right turn lane on Holly Street;
- 75’ westbound right turn lane on 1st Avenue;
- Second westbound through lane on 1st Avenue, extending 225’ from intersection; and
- Separate eastbound left turn lane – full length, extending to Ivy Street.

An important element of the improvements at the 1st Avenue intersections is the side-by-side left turn lanes along 1st Avenue between the northbound and southbound sides of the couplet, which are needed to maximize left turn storage space within the short block length (approximately 225 feet available). Because the demand for the westbound left turn movement at Ivy Street is projected to be fairly high and was estimated to use all of the available storage in this block, the second westbound through lane on 1st Avenue at Holly Street was added to act as an extension of this lane to improve lane balance between the lefts and throughs and to help keep left turn queue overflows from blocking through traffic (see Figure 7-3).

Once south of 1st Avenue, the northbound and southbound sides of the couplet transition into what can be referred to as the "south couplet".

The South Couplet

South of 1st Avenue, the one-way corridors are extended to a point approximately ¼-mile north of the intersection with Prairie Road, where they are brought back together into the existing five-lane corridor and alignment. Within the south couplet, the northbound and southbound couplet corridors change in roadside environment and proposed design. While referred to as a couplet, in this area they could be more appropriately referred to as a divided highway, as the area between the roadbeds is undeveloped and there are no cross-streets.

With the BNSF railroad removed, the northbound lanes could either use the railroad right-of-way or return to the highway right-of-way south of 1st Avenue. The distance of separation between the northbound and southbound roadbeds varies, but could be as great as 125 feet. Directional median openings would be provided to allow for U-turns and improved access to properties adjacent to the highway. Given the change in roadside environment from downtown to highway commercial and industrial, a higher design speed of 40 mph (posted 35 mph) was used for the divided highway section, resulting in the elimination of on-street parking and a small reduction in overall roadbed width compared to the northern section. The south couplet has been illustrated in Figure 7-2, showing general roadway alignments, typical highway cross-sections, lane configurations, traffic signal locations, and locations and conceptual drawings of directional median openings.

Local Facility Improvements

To supplement improvements within the OR 99 corridor itself, improvements that would extend, realign, and increase the capacity of County roads surrounding the City to enhance connectivity and provide alternative routes to OR 99 were developed and analyzed. New and upgraded roads outside of the UGB would be constructed to County Rural Collector standards. In most areas, the roadway upgrades would simply provide wider shoulders (total pavement width of 36 feet), which generally makes a roadway more comfortable for drivers but provides only small capacity benefits. The wider shoulders would also be able to accommodate bicycle traffic. The locations and status of proposed improvements are illustrated in Figure 7-4. The cross-sections of these roadways would include:

- 2 travel lanes (12 feet wide each) and
- 2 shoulders (6 feet wide each).

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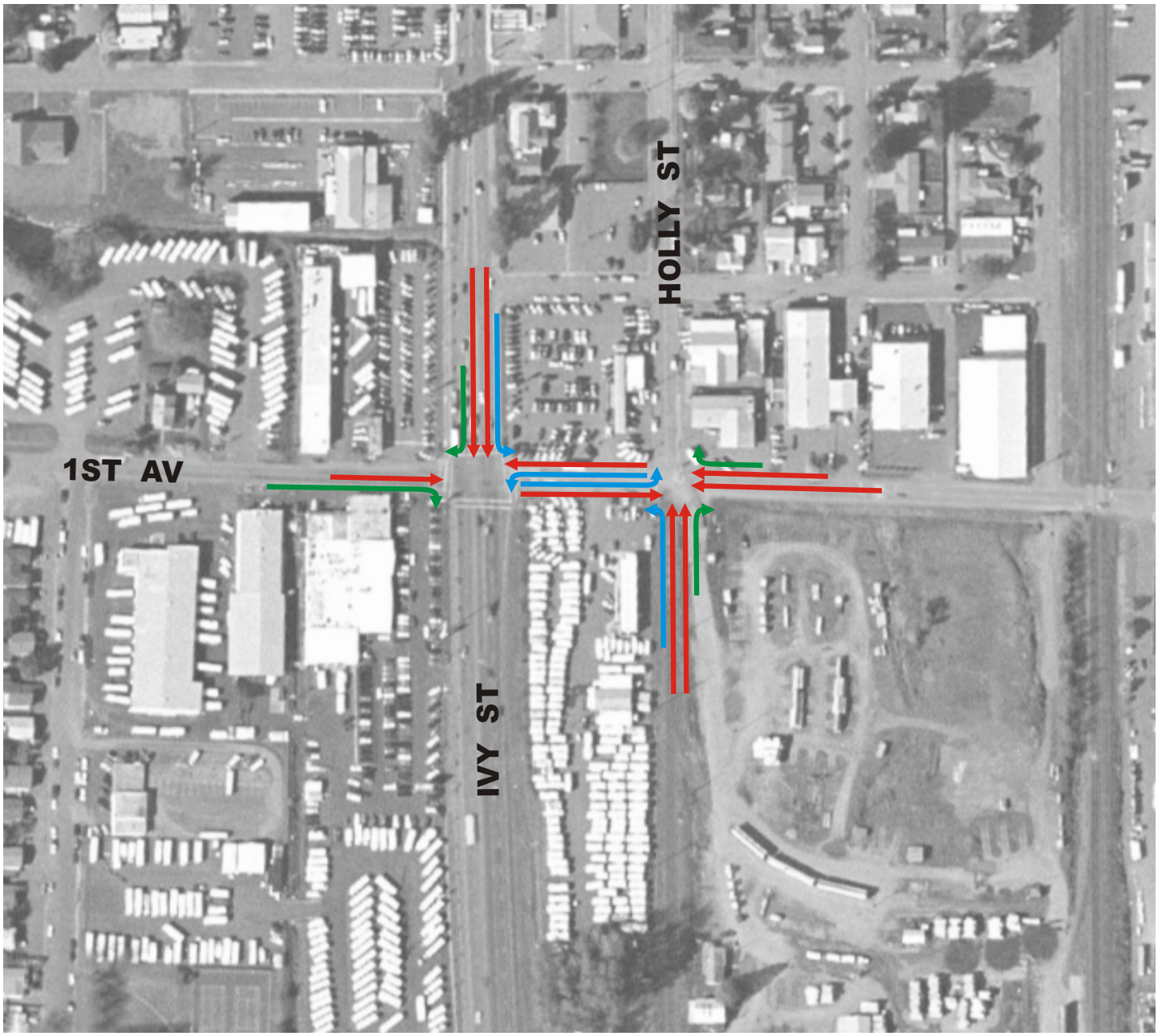
Figure 7-3
IVY/HOLLY AT 1ST AVENUE IMPROVEMENTS

LEGEND
- Left Turn Lane
- Through Lane
- Right Turn Lane



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Scale: 1"=1350'
0 1350'

Figure 7-4
LOCAL FACILITY IMPROVEMENTS

LEGEND
- Right of Way for Upgraded Local Facilities
- Right of Way of New Facilities
- Urban Growth Boundary (UGB)

99W
99E
99
36
18TH AV
10TH AV
6TH AV
1ST AV
OAKLEA RD
DANE LN
LOVELAKE RD
RIVER RD
PRAIRIE RD
PITNEY LN
BNSF RR
UP RR
Ivy/Holly Couplet

Pitney Lane, a local street, would be improved to collector (with shoulder) standards from OR 36 north to Bailey Lane and would be realigned from Bailey Lane north to intersect with High Pass Road opposite Oaklea Drive. This realignment and upgrade would make Pitney Lane more attractive as an alternate route to OR 99 and would facilitate north-south connectivity by acting as an extension of Oaklea Drive. As shown in Figure 7-4, the realigned portion of Pitney Lane would lie outside of the current UGB. Realignments are permitted on rural lands (outside the UGB) provided they can demonstrate through a special use permit process that no significant change is forced on accepted farming and forestry practices on agricultural or forest lands, and no significant cost increase in farming or forestry practices would result, and provided an alternatives analysis meeting TPR requirements supports the realignment.

Prairie Road (east of OR 99) would be realigned to remove the skewed Union Pacific Railroad (UPRR) crossing, and continue north along the east side of the UPRR line. A new east-west roadway would then be constructed to connect Prairie Road to the OR 99/ OR 36 intersection, creating a "T"-intersection with Prairie Road. This would have negligible impact on the BNSF rail crossing (if that section of the line were still in its existing location), but would require construction of a new UPRR crossing (to replace the old one) just west of the intersection of the new roadway at Prairie Road, which would require obtaining a crossing permit from ODOT Rail.

An extension of Prairie Road north of its current intersection with OR 99 was also analyzed, primarily as a means to reduce peak hour congestion at 1st Street and OR 99 that is largely associated with traffic generated by large employers. It would address this congestion by providing an alternative way to access OR 99 and the Eugene area to and from the south without requiring the use of the OR 99 and 1st Street intersection. This extension would run north from the current intersection or Prairie and OR 99, east of the UPRR line through County lands outside of the UGB. As this extension continues north, it would enter the UGB, intersect with 1st Street/River Road, and create a new four-way intersection with Birch Street.

This improvement concept was developed because of the difficulty of creating an alternative connection to OR 99 inside the UGB that would help relieve congestion at OR 99 and 1st Street. The primary difficulty addressing this issue within the existing UGB is associated with developing the new or upgraded rail crossing that would be needed to provide this alternative within the UGB. East-west connectivity enhancements that may make the Prairie Road extension and the existing route along River Road more attractive also include upgrades of River Road on the east side of the City from OR 99 to Lovelake Road. These enhancements would generally include widening to increase shoulder widths, making the roadway more comfortable for motorists and bicycles.

As noted above, this improvement concept is partially outside the existing urban growth boundary but would mostly serve urban uses. Due to state land use law restrictions on accommodating urban development with rural road improvements, it is possible that new road extensions could not be implemented until such time as the Junction City urban growth boundary is expanded or the City obtains an exception to State Land Use Goal 3 (Agriculture). New roads are permitted provided the function of the road is to reduce local access to or local traffic on a state highway, they are limited to two travel lanes, and private access and intersections are limited to rural needs. Such roads are also subject to notice and opportunity to appeal under land use procedures, and must demonstrate that they do not force a significant change in, or increase the cost of, accepted farm and forest practices. Finally, an alternatives analysis is required meeting Transportation Planning Rule (TPR) requirements. If required, the exception would have to provide persuasive evidence that no alternative solutions are available within the urban growth boundary.

This improvement concept does raise an as yet unresolved policy conflict between the ODOT rail crossing policies and the land use goal that strives to minimize or eliminate the pressure to urbanize and develop rural lands that can occur when a new road provides more accessibility.

The Oregon Transportation Commission (OTC) has a long standing reluctance to endorse projects on the state transportation system or that benefit the state transportation system that may increase pressure for development of rural lands. As of the completion of this document, ODOT has not received clear direction from the OTC with regard to the best way to address the congestion problems at the intersection of 1st Street and OR 99. While ODOT is in full agreement that the problem at the intersection of 1st Street and OR 99 exists and needs to be addressed, further analysis of alternatives that stay within the UGB and specific policy guidance from the OTC will be needed before ODOT can endorse a recommended solution to this problem. ODOT is committed to work with the OTC and the City as rapidly as possible to resolve this outstanding question after the completion and adoption of this Refinement Plan. The results of that subsequent process can be amended into this Refinement Plan and/or adopted as part of the next update of the Junction City Transportation System Plan (TSP).

OR 99/Prairie Road improvements

Improvements to the OR 99/Prairie Road intersection (illustrated in Figure 7-2) include signalization (preliminary signal warrants met when modified to treat the northbound left turn as a minor street), construction of a minimal 50-foot eastbound left turn lane on Prairie Road to maximize capacity for the eastbound right turn movement, and the construction of a second northbound left turn lane on OR 99. For the purpose of this analysis, the signal at Prairie Road was assumed to operate with a 120-second cycle length and was coordinated with the signal at OR 99/OR 36 (approximately 2,000 feet to the south). Protected left turn phasing was provided for the northbound left turn movement.

The construction of the second northbound left turn lane on OR 99 will also require the widening of Prairie Road to provide two northbound lanes with which to receive the left turns from northbound OR 99. To ensure adequate lane balance between the two left turn lanes from OR 99, the widening on Prairie Road should be extended to Bailey Lane (approximately 3,800 feet away), where one lane would drop as a left turn lane. However, given the cost of constructing the dual northbound left turn lanes and associated widening of Prairie Road to Bailey Lane, consideration should be given instead to pursuing a design exception to allow operation at a v/c ratio of 0.76 rather than 0.75 (mobility standard from the 2003 Highway Design Manual).

OR 99/OR 36 improvements

Improvements to the OR 99/OR 36 intersection (illustrated in Figure 7-2) include:

- A second northbound left turn lane with 200’ of storage;
- 225’ northbound right turn lane;
- 125’ eastbound left turn lane;
- 200’ eastbound right turn lane;
- 125’ westbound right turn lane;
- Dual westbound left turn lanes with 150’ of storage each; and
- Signal modifications to accommodate approach widening.

Similar to the improvements at the OR 99/Prairie Road intersection, the construction of the dual northbound left turn lanes on OR 99 will require widening of OR 36 to provide two westbound lanes with which to receive the left turns from northbound OR 99. To ensure adequate lane balance between the two left turn lanes from OR 99, the widening on OR 36 may need to be extended to Pitney Lane (approximately 4,200 feet away), where one lane would drop as a right turn lane. However, it may be difficult to characterize such an improvement as solely necessary to accommodate turn movements rather than as general capacity improvements. If such improvements were determined to be general capacity improvements, an exception to Statewide Land Use Goal 3 (Agriculture) could be needed. A certain level of road improvements that increase capacity on rural lands is allowable provided certain criteria associated with impacts to agriculture and forestry practices can be met. Before advancing the project described above, additional analysis should be conducted to determine if adequate turn lanes could be provided without extending all of the way between OR 99 and Pitney Lane. Additionally, given the cost of constructing the dual northbound left turn lanes and associated widening OR 36 to Pitney Lane, serious consideration should be given instead to pursuing a design exception to allow operation at a v/c ratio of 0.77 rather than 0.75 (mobility standard from the 2003 Highway Design Manual).

Implementation Plan

This discussion includes an assessment of the anticipated timing and importance of various elements of Alternative B to guide prioritization of funding. It should be recognized that this assessment assumes growth through 2026 will occur evenly throughout the City and on a linear basis. Significant development activity in any one area of the City could have an impact on the timing of improvements needed. Figure 7-5 has been provided to illustrate the locations of phased elements discussed.

As the intersection on OR 99 at 1st Avenue is the only intersection that fails to meet mobility standards under existing conditions and is projected to be the primary bottleneck in 2026, the timing of the need to implement improvements at this location is immediate. Therefore, the first phase must include the couplet from the north end of the project (OR 99W/OR 99E) through the 1st Avenue intersection (referred to as, "The North Couplet"). The divided highway section south of 1st Avenue (referred to as, "The South Couplet") does not address any mobility needs, but was included to improve traffic safety and extend pedestrian facilities further to the south. Therefore, the divided highway section could be included as a separate phase to be constructed when desired.

While possibly subject to an urban growth boundary expansion or goal exception, the timing of the proposed improvements to local facilities (Prairie Road extension or other solution to address congestion at 1st Street and OR 99 and the River Road and Pitney Lane enhancements) will play a key role in the ability of the couplet and other improvements in the corridor to operate adequately. Without the improved local facilities in place, the intersections on the couplet with 1st Avenue could only operate adequately through the year 2011. The study intersections north of 1st Avenue will operate adequately through 2026 with the couplet in place regardless of timing of the local facility improvements. The relatively near-term need for these improvements should underscore the importance of resolving the ODOT/OTC policy issues described earlier and/or, if necessary, investigating the potential to expand the urban growth boundary or obtain goal exceptions as needed to enable appropriate solutions to move forward in a timely manner.

When prioritizing the local facility improvements, consideration should be given to the amount of traffic that is expected to divert to each facility. Under that method, the extension of Prairie Road to

River Road or an alternative that would similarly address the congestion at the intersection of 1st Street and OR 99 without adding new facilities outside of the UGB would be highest in priority, followed by the Pitney Lane improvements and lastly, the River Road enhancements.

The OR 99/Prairie Road intersection will continue to meet mobility standards without signalization through the year 2023, assuming the local improvements have not been made. With the local improvements in place, this intersection could operate adequately through 2026 without signalization. However, given the high volumes of conflicting southbound through and northbound left turning traffic, safety concerns may drive the need for a signal sooner. When the signal is installed, the capacity for northbound and southbound through traffic that will now be required to stop at times will be reduced. The construction of dual northbound left turn lanes would be required as part of the signal installation to meet adopted mobility standards. However, given the cost of constructing the dual northbound left turn lanes, which includes widening Prairie Road to Bailey Lane, consideration should be given to pursuing a design exception to allow operation at a v/c ratio of 0.76 rather than 0.75.

The intersection of OR 99/OR 36 will continue to operate adequately without improvement and without the improved local facilities through the year 2014. An additional four years could be gained by constructing the westbound right turn lane. When the Prairie Road extension is constructed, the northbound right turn lane and dual westbound left turn lanes will be needed. The separate eastbound left turn lane should be constructed along with the implementation of the Pitney Lane improvements. The dual northbound left turn lanes would not be needed until 2026, and could therefore be included as part of any of the other phases of improvement for this intersection. However, given the cost of constructing the dual northbound left turn lanes, which includes widening OR 36 to Pitney Lane, consideration should be given to pursuing a design exception to allow operation at a v/c ratio of 0.77 rather than 0.75.

In summary, the phasing of improvements should be as shown below. It should be noted that the timing of needed improvements may change over time and that projects should be pursued as needs dictate or as opportunities arise.

Phase 1: The North Couplet – The need for this project is immediate.

Phase 2: Local Facility Improvements –

- Unit 1 would include the Prairie Road extension to River Road or an alternative that would similarly address the congestion at the intersection of 1st Street and OR 99 without adding new facilities outside of the UGB. This project is estimated to be needed by the year 2012.
- Unit 2 would include the Pitney Lane improvements. This project is estimated to be needed by the year 2014.

Phase 3: OR 99/36 Improvements – Elements of this project may be included in Units 1 and 2 of the Local Facility Improvements. Remaining elements not constructed as part of these other projects would be needed by 2026.

Phase 4: OR 99/Prairie Rd. Improvements – This project would not be needed until 2026, unless safety concerns demand it be constructed sooner.

Phase 5: The South Couplet – This project may be constructed at any time.

Local Facility Improvements –

- Unit 3 would include the River Road enhancements. The timing for this project is flexible and may be implemented at any time.

To enable needed projects to be implemented in a timely manner, the removal of the BNSF railroad from Holly Street and the process of resolving ODOT/OTC policy conflict issues, expanding the urban growth boundary, and/or obtaining goal exceptions as needed should be initiated immediately.

Freight Route Considerations

This plan recognizes that OR 99 is a heavy haul freight route. During the design phase, ODOT should involve freight representatives and ensure that any highway improvements resulting from this plan will accommodate the length, width, height, and weight of expected vehicles and loads. Particular attention should be paid to the design of entrances and exits to the couplet, and, in the southern section, to left turns through the median of the proposed divided highway. Also, ODOT redesign of the Holly Street bridge across Flat Creek should be certified as able to withstand repeated heavy haul weights loading.

Planning Document Updates

In order for the Refinement Plan preferred alternative to be fully implemented, a number of local planning documents will need to be updated. First, the adoption of this Refinement Plan updated the TSP Policy 37 to acknowledge the Refinement Plan for future OR 99 project planning and implementation. However, the TSP needs to be updated to reflect the current project priorities of the City, project costs, and non-OR 99 policy refinements. At the time this Refinement Plan was adopted, the City had begun a Periodic Review which included a complete TSP update. Second, it is recommended that the City review and refine the system development charge methodology.

Funding Options

Financing for state transportation system improvements comes from a variety of local, state, and federal sources. Most of the federal and state programs are competitive, and need clear documentation of the project scope, costs, and benefits. The adopted Refinement Plan is the best first step toward this documentation and will be an important planning tool when developing a strategy to acquire funding for the preferred alternative.

As noted earlier in this Refinement Plan, the state transportation system improvements or projects that are expected to be funded by ODOT that are listed on the Recommended Project List are not guaranteed future funding at this time and cannot yet be considered as reasonably likely to be funded during the identified planning horizon for the purpose of addressing OAR 660-0012-0060. For recommended projects to be considered reasonably likely to be funded during the identified planning horizon, they must either be selected for inclusion on the State Transportation Improvement Program (STIP), associated with a specific source of funding that is supported by ODOT in writing, or identified in a funding plan that is supported by ODOT in writing. The STIP is a project scheduling and funding document.

Unlike project lists contained in the STIP and Metropolitan Transportation Improvement Programs (MTIP's) prepared by Metropolitan Planning Organizations (MPOs), the Junction City OR 99 Transportation Refinement Plan project list is not required by federal or state law to be "fiscally constrained." Fiscal constraint is defined as a "*demonstration of sufficient funds (Federal, State, local, and private) to implement proposed transportation system improvements, as well as to operate and maintain the entire system, through the comparison of revenues and costs*."[1] This means that this Plan can provide a single comprehensive list of regional transportation improvement needs and associated costs without having to provide fiscal rationale as to how the respective projects will actually be funded. However, with this rationale, as defined by OAR 660-0012-0060, the projects listed on the state transportation system or expected to be funded through ODOT cannot be used to support subsequent local land use changes unless or until they are included in an adopted State Transportation Improvement Program or a specific funding source is identified and supported by ODOT in writing or a specific funding plan that is supported by ODOT in writing is developed.

Therefore, with respect to the projects listed on the state transportation system or expected to be funded through ODOT, the Junction City OR 99 Transportation Refinement Plan Recommended Project List acts only as a reference for regional and local officials responsible for state and local transportation facilities in Junction City and Lane County to consult when (1) considering projects to propose to the State for inclusion in the STIP, (2) developing priorities for local funding, (3) determining project needs associated with private development proposals, and (4) determining projects needed to support publicly initiated plan amendments or zone changes. Because the cost of needed transportation improvements across the state far exceeds available funds, state officials must ultimately decide what projects to fund on the state transportation system, through inclusion on the STIP, based on a thorough evaluation of all projects proposed statewide. This evaluation and selection process is detailed in the *STIP User's Guide* (ODOT, 2003)[2].

The primary source for funding a major project on the State system is through the State Transportation Improvement Program (STIP). For the local road improvement portions of the

[1] Source: Federal Highway Administration web page: http://www.fhwa.dot.gov/planning/fcdef62805.htm
[2] STIP User's Guide available online at: http://www.oregon.gov/ODOT/TD/TP/stipGuide.shtml

preferred alternative, some local funding will most likely be required and would typically come from potential future bond or other local revenues. While the improvements are proposed on county roads, the loss to the county of Secure Rural Schools funding, and the absence of any other identified funding sources at this time, mean that Lane County is unlikely to be able to provide funding for these road improvements. Other local funding sources might include grants and private funds. A summary of potential public funding sources for the OR 99 couplet concept are included in this section of the Refinement Plan. Some of these funds are restricted to the type of improvements that qualify for assistance. Typically, state and federal funds require projects to comply with current ADA guidelines for accessibility.

Federal Funding Sources
Some federal funding programs are administered by the state. These programs are listed below.

Safe, Affordable, Flexible, Efficient, Transportation Equity Act- Legacy for Users (SAFETEA-LU)
SAFETEA-LU funding is targeted to improvements that demonstrate beneficial impacts towards implementing a region's transportation system plan; enhancing the multi-modal nature of the transportation system; and meeting local land use, economic, and environmental goals. Funding categories created by SAFETEA-LU are intended to provide more discretion in allocating federal transportation funds to projects ranging from highway improvements to transit improvements, management systems, and non-vehicular modes such as bicycle and pedestrian improvements. SAFETEA-LU funding programs include: National Highway System, Interstate Program, Surface Transportation Program, and National Scenic Byways Program.

Surface Transportation Program
Funding for transportation enhancement activities is provided under the Surface Transportation Program (STP) of SAFETEA-LU. These enhancement activities include the provision of facilities for pedestrians and bicycles. Ten percent of each state's share of STP funds is to be set aside for transportation enhancements. These funds are dispersed through ODOT's regional offices. The project must be included in the State Transportation Improvement Program (STIP) to receive STP funds. The STP is the most flexible of the funding programs and can fund improvements on any highway except those with a functional classification of local street or rural minor collector. These roads are now collectively referred to as federal-aid routes. Transit capital improvement projects are also eligible for funding through this category. Each eligible city is suballocated a portion of the State's STP funds. The project sponsor must request inclusion of the project in the annual STIP.

Transportation Enhancement Program (TE)
The state is required to set aside a portion of its STIP funds for projects that will enhance the cultural and environmental values of the state's transportation system. Projects need to demonstrate a link to the intermodal transportation system. This program funds enhancements that include mitigation of water pollution due to highway runoff, landscaping or other scenic beautification, bicycle/pedestrian projects, historic preservation, acquisition of scenic easements and scenic or historic sites, archaeological planning and research, and preservation of abandoned railway corridors.

Community Development Block Grants
Community Development Block Grants (CDBG) are administered by the Department of Housing and Urban Development and disbursed through the state. Although CDBG funds could be used for

transportation projects in eligible cities, these funds typically are used for other types of infrastructure projects.

Land and Water Conservation Fund
This grant program is administered by ODOT. Funds are derived under Public Law 88-578 from the National Park Service and U.S. Department of the Interior. Grants are available for the acquisition of land and the development of public outdoor recreation facilities. Grants are limited to 50 percent of the total project cost and the cities and counties are responsible for the remaining project cost. Bicycle/pedestrian paths have been funded under this program in instances where they were shown as needed in connection with outdoor recreation activities.

State Funding Sources
Oregon Department of Transportation State Highway Fund
The State of Oregon collects gas tax revenues, vehicle registration fees, and weight mile taxes on freight carriers. ODOT, through the Department of Revenue, receives these revenues and disburses a portion of them to individual cities and counties based on their percentage of statewide population. The Oregon constitution limits the use of these funds to capital projects within right-of-ways. Cities may use funds for local street, bike lane and sidewalk upgrades, maintenance, and new construction. A reasonable amount of this fund (at least one percent) must be spent on bicycle and pedestrian facilities.

ODOT administers two annual grant programs for bicycle and pedestrian projects using Highway Fund money. This grant program funds projects that cost up to $100,000 and may require a 20 percent local match. One program is for bicycle and pedestrian projects within road right-of-ways of local streets or for bicycle maps. The second program is for small-scale urban pedestrian and bicycle improvements on state highways.

ODOT combines federal funds with State Gasoline Tax Revenues to support capital projects in the STIP. The STIP is the state document that lists projects in the coming years, the associated fund, and the source of those funds. The STIP is a project prioritization and scheduling document developed through various planning processes that involved local and regional governments and transportation agencies. Aeronautics, rail, public transit, bicycle/pedestrian and highway projects are included. Public meetings are held throughout the state prior to adoption by the Oregon Transportation Commission (OTC). The adopted STIP lists projects by ODOT's regions. These regional offices are responsible for administration and disbursement of the funds.

Access Management Program
Approximately $500,000 is set aside each year to address access management issues, including the evaluation of existing approach roads to state highways. Over the years, many accesses to state highways have become unsafe due to higher speeds and increased traffic volumes. The program will identify those locations, determine necessary mitigation, prioritize improvements, and correct problems.

Local Government Fund Exchange
This program helps local governments make the most effective use of limited transportation funding. To reduce their administrative burden, local governments can agree to develop their projects with

state funds, which are easier to administer, while the state uses the local governments' federal funds for state projects. This program allows flexibility in spending.

Community Transportation Program

The Community Transportation Program provides money to fund public and special needs transportation in small cities and communities throughout the state. The program is financed by a combination of state, federal, and local matching funds. The program is a unified project application, review, and selection process for discretionary funds. These funds are made available under the Federal Transit Act, Elderly Persons with Disabilities Program, the Non-Urbanized Area Formula Program, and the Special Transportation Fund (STF).

Special Transportation Fund (STF)

The STF (ORS 391.800-391.830) revenues are collected through the state cigarette tax and are distributed based on a formula that takes into consideration the elderly population in poverty. The funds that come into Lane County are then allocated to the rural districts based on population and service needs according to the STF Advisory Committee. The STF is the only dedicated revenue source in the State of Oregon for specialized transportation for the elderly and persons with disabilities. This funding source has declined over the years due to the reduction in the amount of cigarette tax collected. There is awareness that new sources of revenue are needed. Lane Transit District oversees and coordinates with providers to operate services funded through STF.

Oregon Economic Development Department Special Public Works Funds

The State of Oregon, using lottery proceeds passed through the Oregon Economic Development Department (OEDD), has provided grants and loans to local government to construct, improve, and repair public infrastructure in support of local economic development and job creation. The application of this funding source for transportation improvements is limited. Funds for rail projects are also available through the OEDD. Projects must compete with other public works projects submitted by local and state agencies. As of 1996, OEDD had administered approximately $4.5 million in lottery funds to develop three rail projects.

Immediate Opportunity Fund

ODOT funds the Immediate Opportunity Fund through an annual $5 million allotment from the State Motor Vehicle Fund. OEDD administers the fund. The funds are set aside to provide OEDD the opportunity to respond quickly to transportation improvements that demonstrate a significant benefit to economic development and job creation. The program has been expanded recently to include alternate modes that reduce vehicle miles traveled, and for new technologies that improve commerce or safety. The maximum amount available for a single project is $500,000. A key factor in determining eligibility for funds is whether an immediate commitment of funds is required to influence the location, relocation, or retention of a firm in Oregon. Funding is reserved for cases where an actual transportation problem exists, and where a location decision hinges on immediate commitment of road construction resources.

Lane County Funding Sources

Lane County Road Fund

This is a set of funds collected from the County's share of the state motor vehicle fund and federal timber receipts. They are limited to use within street right-of-ways. These funds can be used for

restoration and upgrading County roads. However, the county's Road Fund is known to be suffering from a structural deficit where revenues are flat and costs are increasing, and a primary source of those funds, federal Secure Rural Schools funding, has been eliminated. Lane County is therefore moving away from road reconstruction or construction projects.

Economic Development Assistance Program
The Economic Development Assistance Program (EDAP) is funded through loans from the County Road Fund. Funds may be used to improve the marketability of for sale industrial properties or to improve access to existing industrial businesses. The goal of EDAP is to create family-wage jobs that directly benefit local communities. The future of this funding source is in question due to the County's diminishing share of federal timber receipts.

Payroll Tax
LTD typically funds its services through an employer payroll tax.

City Funding Sources
City Transportation Fund
This is a set of funds from the City's share of the state motor vehicle fund and the federal timber receipts allocated through Lane County.

System Development Charges
System Development Charges (SDCs) could be collected as vacant parcels of land are developed or redeveloped. This charge would be based on the development's impact on the overall transportation system. Transportation SDCs are based on the land use type, the size of the development (number of dwelling units or number of acres), the number of trips per unit of development (derived from the Institute of Transportation Engineers' Manual), and the fee/trip rate. These funds may also be used for financing alternative modes projects. Coburg could create a SDC based on this transportation plan. The costs of setting up a SDC can be covered in the charge itself.

Debt Financing
General obligation bonds: Bonds are sold by the municipal government to fund public infrastructure and other improvements, and are repaid with property tax revenue. Voters must approve general obligation bond sales. Revenue bonds: Bonds are sold by the City and repaid from an enterprise fund that has steady revenue from sources such as a water or sewer fund. The bonds are typically sold to fund improvements in the system that is producing the revenue. They are a common means to fund large, high-cost capital improvements that have a long, useful life.

User Fees
In general, the users pay based on their use of, or impact on, the system.
Local gas tax: The City or County could implement a local gas tax, in addition to the existing revenues from the state gas tax. Several cities and counties in Oregon have a local gas tax. Given the current anti-tax atmosphere, it may be difficult to get voter approval on a local gas tax. Local vehicle registration fee: Counties can implement a local vehicle registration fee. A portion of the County fee would be allocated to cities in Lane County. The fee would provide a stable and reasonable funding source, but is unlikely to receive local support. Street utility fee: Similar to a water or sewer utility

fee, a fee would be assessed in the city for use of streets. Implementing a street utility fee would require voter approval and political support would likely be low.

Special Assessments

Assessments pay for on-site or adjacent public improvements. The property owners who directly benefit from the improvement pay the assessments. Local improvement district: The property owners who will benefit from the improvements pay an assessment of the project cost. Agreement for improvements: It does not always make sense for a land divider or property owner to install the required improvements (including streets and sidewalks) at the time of development. If that is the case, s/he executes and files with the city an agreement to pay for future improvements.

Local Improvement Districts (LIDs)

Districts typically are created by local property owners, imposing a "new tax" to fund improvements. Funds can be used for right-of-way acquisition and construction. LIDs can support improvements for roadways, bicycle and pedestrian facilities and amenities.

Parking Fees

Instituting parking fees, for commercial districts and/or increasing parking fees for illegal parking is an option to augment street funds.

Private Developers

The majority of local streets and sidewalks are paid for at the time of development by the developer who includes the cost in the sale price of the homes or properties. This will also apply to bikeways, bicycle parking, and transit facilities. In this way, the benefiting users are paying for the cost of the system installation. The city then is responsible for maintaining improvements within the public right-of-way.

DKS Associates
TRANSPORTATION SOLUTIONS

OR 99
Junction City
Refinement Plan

Scale: 1"=1350'
0 1350'

Figure 7-5
PROJECT PHASING

LEGEND

- Urban Growth Boundary (UGB)

NOTE: New road extensions on lands outside of the City UGB may not be possible until the UGB has been expanded to incorporate them or until an exception to State Land Use Goal 3 (Agriculture) has been obtained. Additionally, with respect to the Prairie Road Extension, further study is needed to determine if there are other projects within the UGB that are capable of providing comparable benefits, where the associated impacts to developed property, railroads, and design standards are preferable to the likely impacts to rural lands. Alternative mobility standards for OR 99 may also be considered as part of this process.

Phase 1
The North Couplet

Phase 5
The South Couplet

Phase 5
River Rd Enhancements

Phase 2 - Unit 2
Pitney Ln Improvements

Phase 2 - Unit 1
Prairie Rd Extension

Phase 4
OR 99/Prairie Rd Improvements
(Could Drop Prairie Rd Widening to Bailey Ln with Approval of Design Exception)

Phase 3
OR 99/OR 36 Improvements
(Could Drop OR36 Widening to Pitney Ln with Approval of Design Exception)

99W
99E
99
36
18TH AV
10TH AV
6TH AV
1ST AV
OAKLEA RD
DANE LN
LOVELAKE RD
RIVER RD
PRAIRIE RD
PITNEY LN
UP RR
BNSF RR